

11000 series

Professional toggle switches - threaded bushing Ø 6,35 (1/4)

Specifications

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - silver contacts (A-AD2-X780) : 2A 250VAC - 4A 125VAC - 4A 30VDC
 - gold contacts (D) : 200mA 250VAC - 400mA 125VAC
 - Minimum load : AD2-X780-D contacts : 10mA 50mV, 10µA 5V min.
 - Initial contact resistance : 10 mΩ max.
 - Insulation resistance : 1.000 MΩ min. at 500VDC
 - Dielectric strength :
 - 1.000 Vrms 50 Hz min. between terminals
 - 2.000 Vrms 50 Hz min. between poles and between terminals and frame
 - Contact bounce : 2 ms max.
 - Electrical life at full load :
- Peak currents, refer to "Special options".

Contacts	Max. current/voltage rating	Number of cycles	
		2 positions	3 positions
A	2A 250VAC - 4A 125VAC - 4A 30VDC	50.000	50.000
AD2 X780	2A 250VAC - 4A 125 VAC - 4A 30VDC (Gold plating : 100mA 30VDC max.)	20.000	20.000
D	200mA 250VAC - 400mA 125VAC	80.000	50.000
Low level or mechanical life		150.000	100.000

MATERIALS

- Case : diallylphthalate (DAP)
- Actuator : brass, nickel plated
- Bushing : brass, nickel plated
- Housing : brass, nickel plated
- Contacts
 - A : silver
 - AD2 : gold plated silver (2 microns gold)
 - X780 : solid rivet - gold plated silver/nickel alloy
 - D : solid gold rivet
 - X910 : silver/nickel alloy (for peak currents, see "Special options")
- Terminal seal : epoxy

Note : AD2 and X780 contacts can be used for high level applications. In this case, the gold layer is considered only as a protection against oxidation during storage.

GENERAL SPECIFICATIONS

- Torque : 1,25 Nm (.92 Ft.lb) max. applied between the 2 nuts
- Standard panel thickness : 2,5 mm (.098) max.
- Operating temperature : -40°C to +85°C

RELIABILITY - RUN-IN TEST

Upon request, each individual switch can be submitted to a low level run-in test of 50 or 250 cycles to ensure suitability for special applications requiring a very high level of reliability (military, etc.).

AGENCY APPROVALS



CECC 96201-005
CECC 96201-008

Availability : consult factory for details of approved models.

Marking : to order switches marked CECC, complete appropriate box of ordering format.

Dimensions : first dimensions are in mm while inches are shown as bracketted numbers.

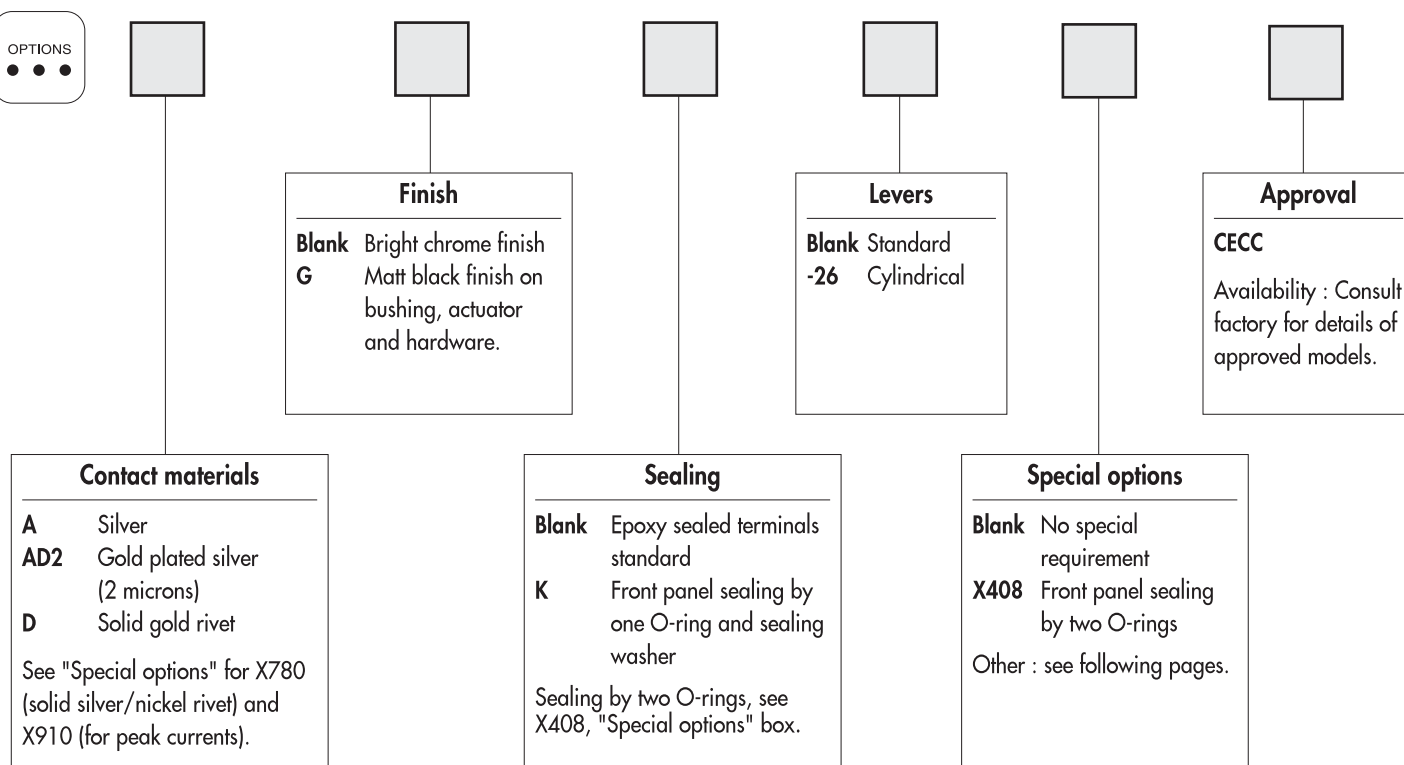
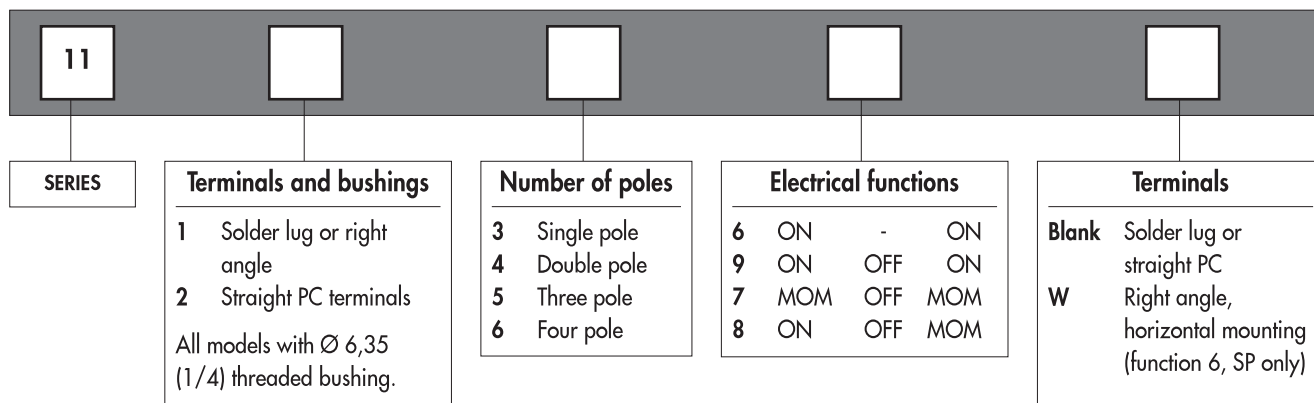


Packaging unit : 25 pieces or 50 pieces depending on models.

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Overview



NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as in above chart



Sealing boots are available to protect the switches against dust and water. They are presented in section H.



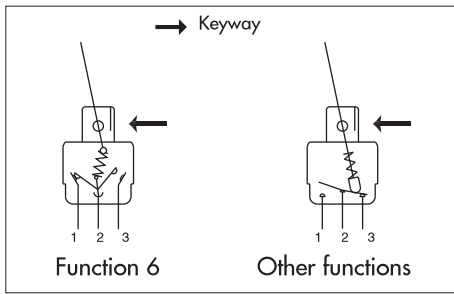
Mounting accessories : standard hardware supplied with all models : 2 hex nuts 8 (.314) across flats, 1 locking ring and 1 lockwasher. Standard and special hardware available are presented in section I.

11000 series

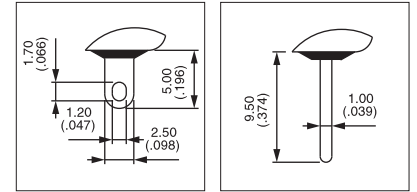
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MODEL
STRUCTURE

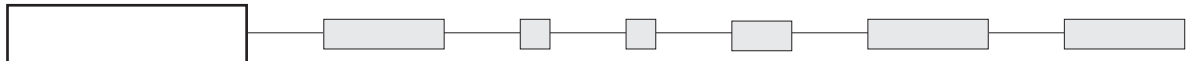
A



- Solder lug, straight PC or right angle terminals
- Epoxy sealed terminals standard



MODEL
STRUCTURE



Shown with standard lever

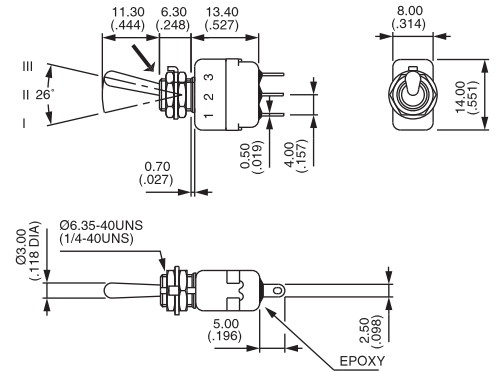
Solder lug terminals - single pole



11136
11139
11137
11138

	I	II	III
ON	-	ON	
ON	OFF	ON	
MOM	OFF	MOM	
ON	OFF	MOM	

→ Keyway



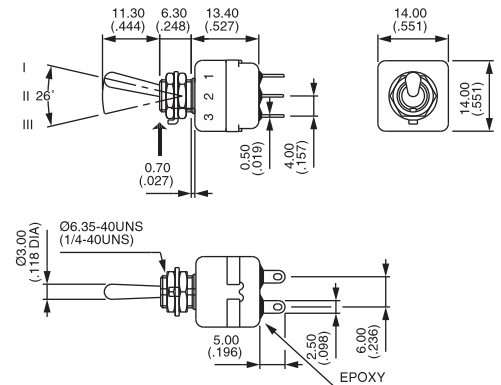
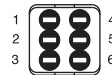
Solder lug terminals - double pole



11146
11149
11147
11148

	I	II	III
ON	-	ON	
ON	OFF	ON	
MOM	OFF	MOM	
ON	OFF	MOM	

→ Keyway



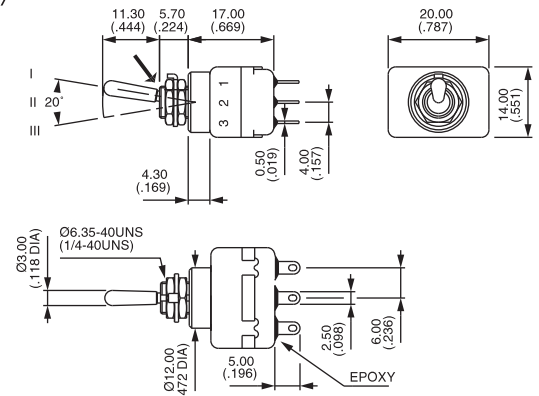
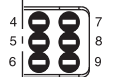
Solder lug terminals - three pole



11156
11159
11157
11158

	I	II	III
ON	-	ON	
ON	OFF	ON	
MOM	OFF	MOM	
ON	OFF	MOM	

→ Keyway



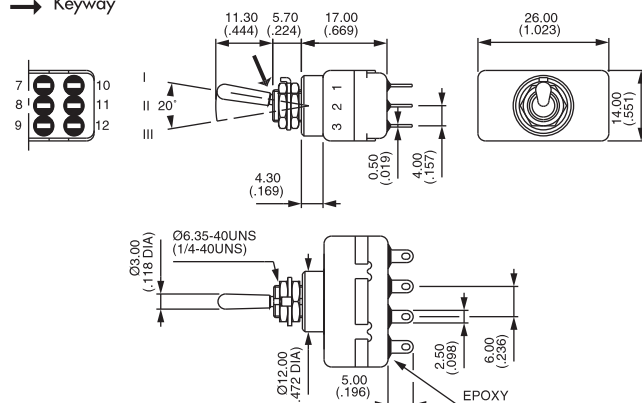
Solder lug terminals - four pole



11166
11169
11167
11168

II	II	III
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM

→ Keyway



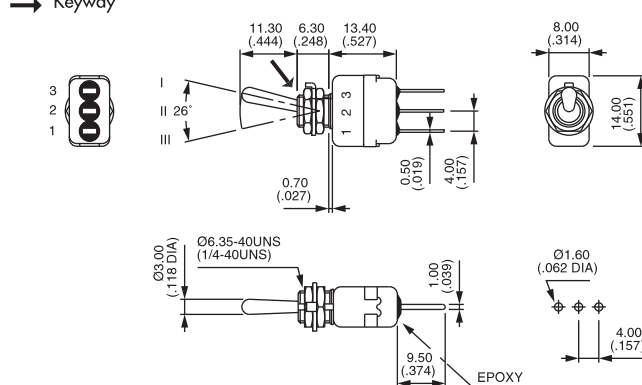
Straight PC terminals - single pole ▲



11236

II	II	III
ON	-	ON

→ Keyway



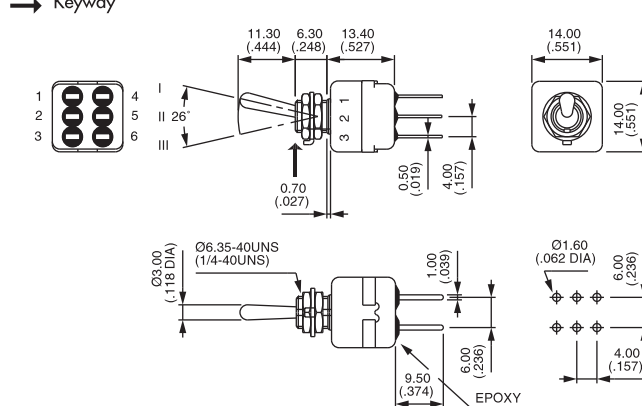
Straight PC terminals - double pole ▲



11246

II	II	III
ON	-	ON

→ Keyway



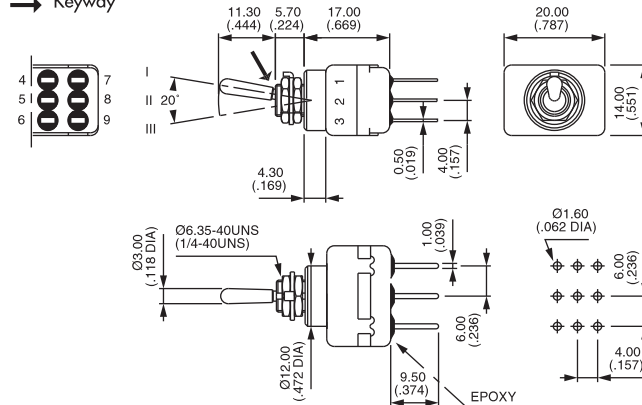
Straight PC terminals - three pole ▲



11256

II	II	III
ON	-	ON

→ Keyway



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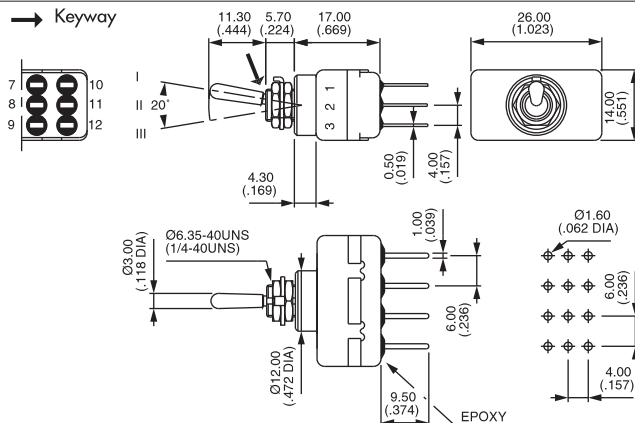
MODEL
STRUCTURE

Straight PC terminals - four pole ▲



11266

ON - ON

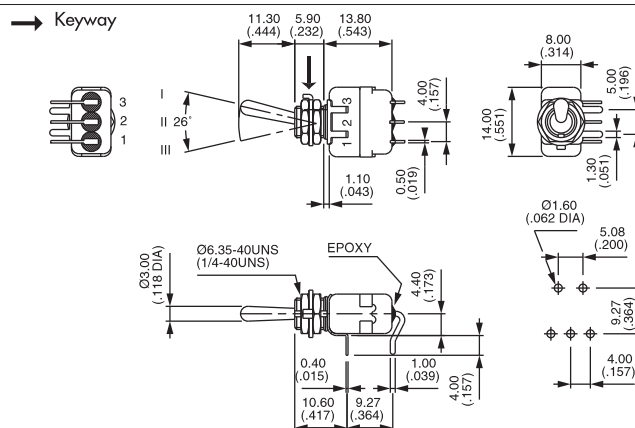


Right angle terminals - horizontal - single pole

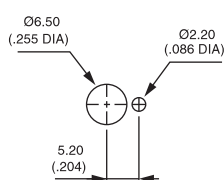


11136W

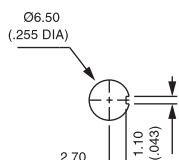
ON - ON



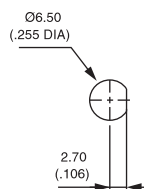
PANEL CUT-OUT



Standard

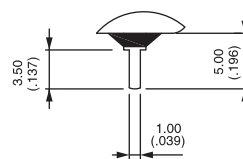


With K
sealing option



With X408
sealing option

▲ 3,5 mm (.138) short terminals available for function 6, as well as for functions 9, 7 and 8. On request.

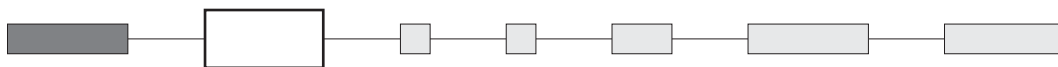




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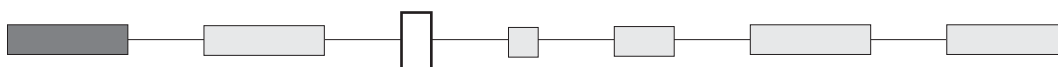
CONTACT MATERIALS



- A** Silver
- AD2** Gold plated silver (2 micron gold)
- D** Solid gold rivet

See "Special options" for contacts X780 (solid silver/nickel rivet) and contacts X910 (for peak currents).

FINISH



- Blank** Bright chrome finish
- G** Matt black finish on bushing, lever and hardware.

Other finish, consult factory.

SEALING

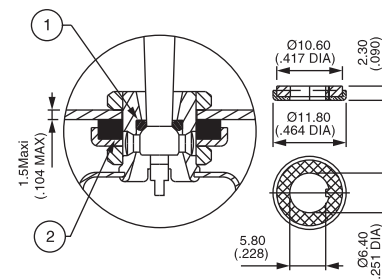


Epoxy sealed terminals are standard.

- Blank** No sealing except standard
- K** Front panel sealing by O-ring and sealing washer. Protects the switch against water and dust. Panel seal withstands 1 bar pressure and remains sealed even when switch is operated.



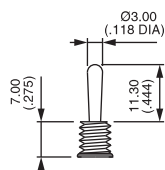
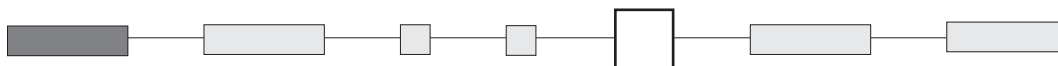
Not available on 11000W model.



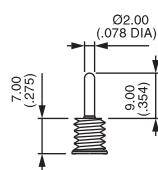
- ① O-ring
- ② Sealing washer

Sealing by two O-rings, see X408 under "Special options".
Sealing boots : see section H.

LEVERS



Blank
Standard



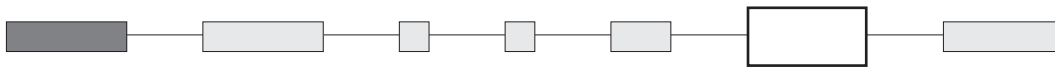
-26
Cylindrical

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OPTIONS
● ● ●

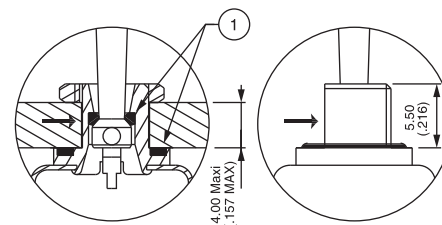
SPECIAL OPTIONS



- X408** Front panel sealing by two O-rings. Flatted bushing for precise orientation.
Protects the switch against water and dust.
Panel seal withstands 1 bar pressure and remains sealed even when switch is operated.



Not available on 11000W model.



X408

→ Flat

① O-rings

- X780** Solid rivet, gold plated silver/nickel alloy

- X910** Switches for peak currents

Peak current up to 80A (1 ms) 60VDC - single/double pole



Single pole
11136 X910

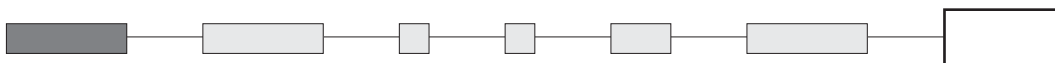
ON - ON

Double pole
11146 X910

ON - ON

- Contacts : solid rivet - silver/nickel alloy (AgNi)
- Max. current/voltage rating :
3/80A (1 ms) 60VDC - 10.000 cycles
2/30A 250VAC - 10.000 cycles
- Further specifications and dimensions : see previous pages
- General information on peak currents : see end of catalogue.

AGENCY APPROVALS



- CECC** CECC 96201-005 (high level - contacts X780)
CECC 96201-008 (low level - contacts AD2 or D)

Availability : consult factory for details of approved models.

Marking : to order switches marked CECC , complete above box with "CECC".
Blank : no agency approval required.